



WE KNOW SERVICES

ARBORICULTURAL METHOD STATEMENT

VALLEYFIELD
NORTH END LANE
HALEWOOD
KNOWSLEY
L26 5QB

MARCH 2021

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Ref: 21/00003

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1.0 Discussion

- 1.1 Most of the root system of a tree is in the surface 600mm of the soil, extending radically for distances frequently more than the trees height. Beyond the main structural roots (close to the base of the trunk), the root system rapidly sub-divides into smaller diameter roots. From this main system a mass of fine roots then develops.
- 1.2 The shape of the main structural roots develops in response to the need for the tree to have physical stability. Beyond these major roots, root growth and development is influenced by the availability of water and nutrients. Unless conditions are uniform around the tree, which would be unusual, the extent of the root system will be very irregular and difficult to predict. It will not generally show the symmetry seen in the branch system.
- 1.3 The parts of the root system, which are active in water and nutrient uptake, are very fine, typically less than 0.5mm diameter. They are short lived, developing in response to the needs of the tree, with the majority dying each winter. It is essential that conditions in the soil remain conducive to the healthy growth of these fine roots so that the water and nutrients necessary for healthy tree growth can be absorbed.
- 1.4 All parts of the root system, but especially the fine roots, are vulnerable to damage. Once they are damaged, water and nutrient uptake will be restricted until new roots have regenerated. Vigorous young trees will be capable of rapid regeneration, but over mature trees will respond slowly, *if at all*.
- 1.5 To live and grow, roots need oxygen from the soil. Respiration by the roots and other soil organisms depletes this oxygen and increases carbon dioxide levels in the soil; a correct balance of these gases is normally maintained by diffusion between the soil and the atmosphere. Anything, which disturbs this balance, will affect the condition of the root system.
- 1.6 The factors that most commonly affect this diffusion adversely, and therefore damage roots, are the following: -
 - a) Compaction of the ground, which reduces the space between soil particles. This is particularly important on clay soils. A single passage by heavy equipment on clay soils or storage of heavy materials can cause significant damage;
 - b) Changing soil levels, even for a few weeks;
 - c) Covering the root area with impervious surfaces; and
 - d) A rise in the level of the water table. Roots can tolerate submersion for short periods. But a permanent rise will deplete the soil of oxygen.
- 1.7 Serious damage is often caused during preliminary site works by stripping the topsoil. For this reason, such works should be avoided until protective fencing has been erected.

- 1.8 Excavations in the rooting area can sever roots. As most roots are in the surface 600mm, even shallow excavations can cause damage.
- 1.9 Excavations for foundations, landscaping or service trenches are usually sufficiently deep to sever most of the roots, and it should therefore be assumed that all parts of the root system beyond the excavation would no longer serve the tree.
- 1.10 Excavation or soil stripping which sever or damage the roots may impair the stability of the tree and make it dangerous.

2.0 Method Statement

2.1 Tree Works

- 2.1.1 Before any form of development commences on the site the following works should be undertaken: -

Tree No.	Proposed Works
T10 and T12	Remove trees
G1, T8, T9 and T11	Relocate trees

2.2 Relocating Trees

- 2.2.1 The trees should be moved during the dormant season from late October to March.
- 2.2.2 Soil should be watered well the day before transplanting.
- 2.2.3 The extent of the root ball should be determined by exploratory digging. For young trees this is typically parallel with the branch spread.
- 2.2.4 Loosely tie the branches before lifting. Lift the tree with as much of the root ball intact as possible. If required sever thicker roots with a sharp clean knife.
- 2.2.5 Cover the root ball in damp sacking or similar material to prevent the roots from drying out. Replant as soon as possible.
- 2.2.6 When replanting, use the existing soil mark on the stem as a guide to establish required planting depth. Mix some compost into the soil when backfilling. Water the tree thoroughly after planting and during periods of dry weather. An organic mulch can be applied to conserve moisture and prevent weeds.

2.3 Protective Fencing

- 2.3.1 All fencing used on the site should fully comply with BS 5837:2012 (Trees in Relation to Construction – Recommendations)- refer to Appendix 2.0.
- 2.3.2 The fencing should be strong and suitable for local conditions. It should also take into account the degree of construction activity on the site.

- 2.3.3 The fencing should be at least 2.3m in height and should be erected with both a vertical and horizontal scaffolding framework capable of withstanding impact, with vertical tubes spaced at a maximum of 3 m. This should support either weldmesh panels which should be securely fixed with wire or scaffold clamps.
- 2.3.4 Notices should also be erected on the fencing stating 'Protected Area - No operations within fenced area'.
- 2.3.5 The positioning of the protective fencing is also very important and should be erected in the proposed location identified in Appendix 1.0. Once the fence has been erected it should never be crossed and particular care should be taken to store any materials or soil within the protected area.
- 2.3.6 Where it is demonstrated that there is a presence of underground services, an alternative arrangement is acceptable using boots to support the vertical sections of the fence and a stabilizer strut mounted on a block tray.
- 2.4 Special Measures Surface for Pedestrian Access within the Root Protection Area (RPA)
- 2.4.1 If pedestrian access is required within the RPA of a tree the following methodology must be followed:
- Mulch must be spread to a depth of 150mm over the dedicated area.
 - The mulch must be levelled then covered with boarding. The boarding may be either: scaffold boards laid butted together (Appendix 3.0); or plywood sheets 2440mm by 1220mm at least 19mm thick laid butted together.
- 2.5 Special Precautions During Drainage Works
- 2.5.1 Excavation within the root protection areas will be carried out under a watching brief from a qualified arboricultural consultant. It will be their responsibility to monitor the effect of the works on adjacent trees and provide ongoing advice on how to avoid or minimise damage as the work proceeds.
- 2.5.2 The site manager will notify the arboricultural consultant at least 48 hours prior to works commencing.
- 2.5.3 The arboricultural consultant will monitor the size and density of tree roots encountered and make on-site recommendations according to the following findings:
- No roots - continue without constraint
 - Minor roots (<10mm) - continue to monitor
 - Moderate roots (<25mm) - prune roots neatly
 - Major roots (>25mm) - agree additional design, methodology or tree management measures. This would be discussed with the LPA in order to agree an acceptable way forward.

2.5.4 If roots less than 25mm in diameter are present they will be pruned using an appropriate sharp clean pruning tool such as pruning saw or secateurs and treated with an approved fungicidal sealant.

2.5.5 Fine roots (< 25mm in diameter) will not be left exposed overnight where there is a risk of frost.

2.6 Additional Precautions Outside Fences Areas.

2.6.1 Oil, bitumen, cement, or other material likely to cause damage to the tree will not be stacked or discharged within 10m of the trees stem or within the protective area. Also, materials in general will not be stacked or discharged within the exclusion zone.

2.6.2 Concrete mixing and washing will not be carried out within 10m of any retained trees.

2.6.3 Fires will not be lit beneath the foliage or in a position where the flames could extend to within 5m of the foliage, branches, or trunk. If the fire is large then this may necessitate a distance of at least 20m.

2.6.4 Trees that are to be retained will not be used as anchorage for equipment.

2.6.5 Notice boards, telephone cables, or other services will not be attached to any part of the retained tree.

2.6.6 Care should be taken when using cranes or other equipment near the canopy of the retained trees. Also, any trees to be felled in proximity to the retained trees should be done so with particular care.

2.7 Tree Planting

2.7.1 All imported soils should be uncontaminated and from a recognised supplier in accordance with *BS 3882:2015 Specification for Topsoil*.

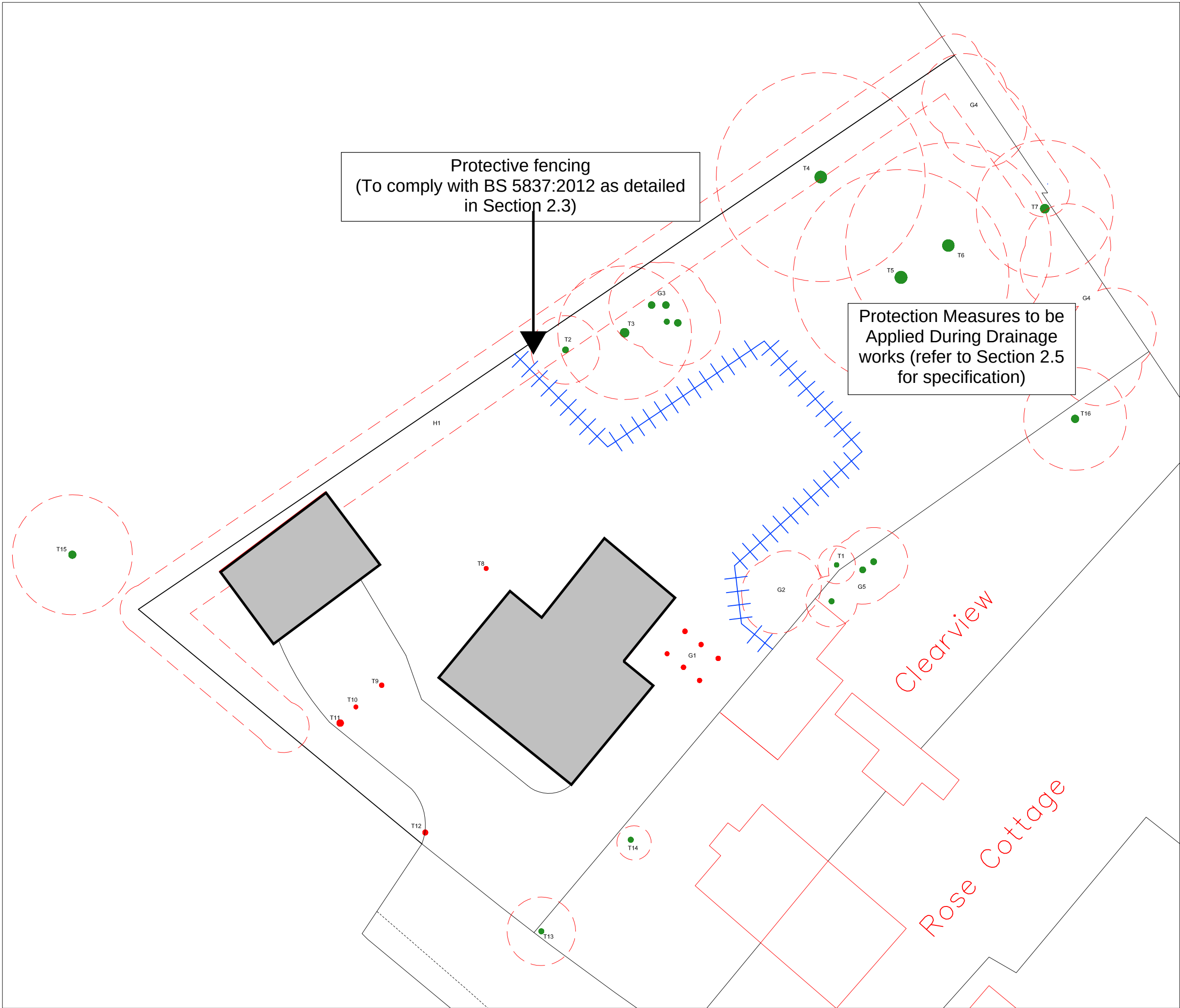
2.7.2 Trees and shrubs planted shall comply with *BS 3936 Specification of Nursery Stock* and shall be planted in accordance with *BS 4428 General Landscape Operations* and *BS8545:2014 Trees from Nursery to Dependence in the Landscape*.

2.7.3 Bare root and root-balled stock to be planted in the dormant season (which typically extends between from mid-November to late-March). All planting stock to be clearly labelled on delivery with the full botanical name.

2.7.4 Tree pits to be dug 400mm larger than rootball in any direction. Organic soil improvement compost to be dug into all planting areas and used at 1m³ per 10m². All planting beds to be mulched in 75mm depth medium grade bark mulch immediately after planting.

Appendix 1.0

Tree Protection Plan



-  Root protection area
-  Tree protection fencing
-  Tree to be retained
-  Tree to be removed



Court Hey Park
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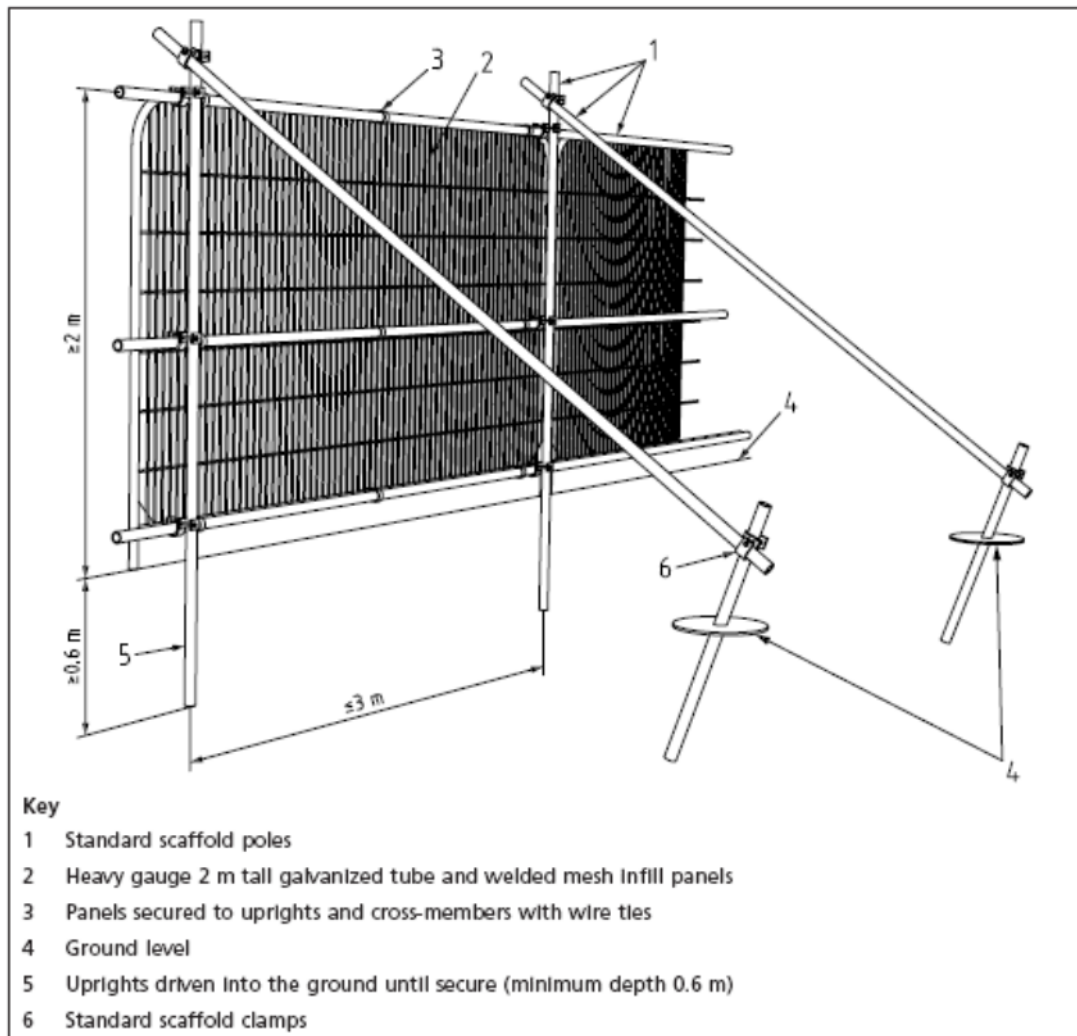
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Valleyfield,
North End Road,
Halewood,
L26 5QB

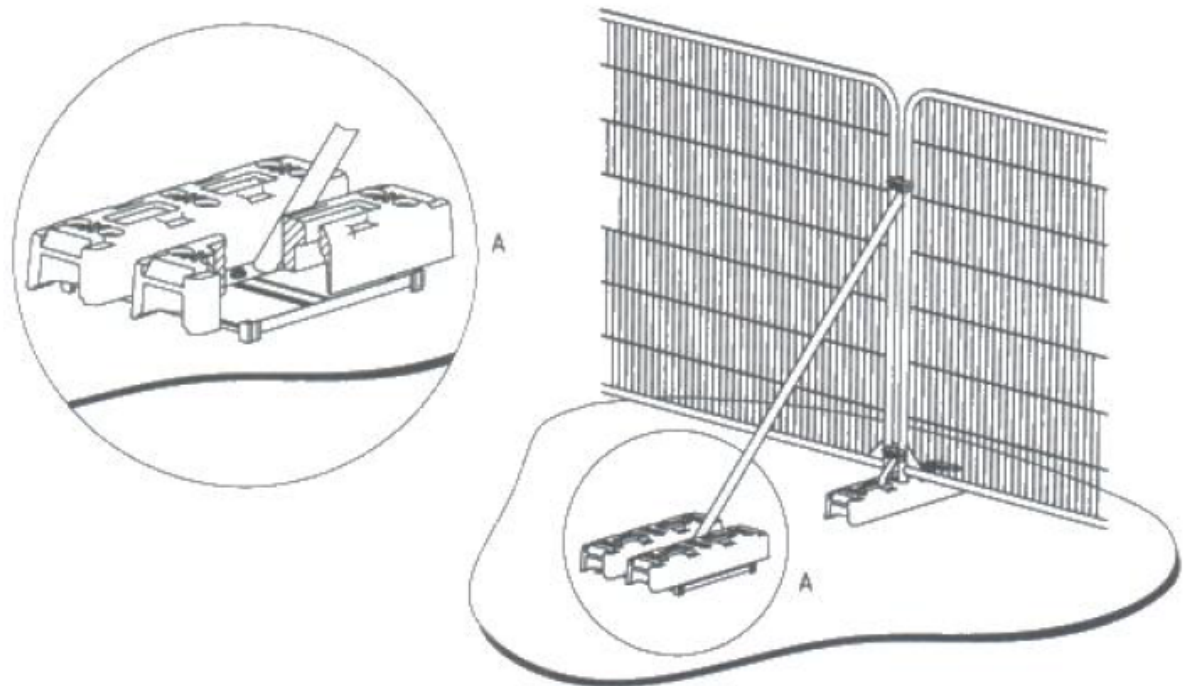
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Tree Protection Plan		21/00003/MS	
Date:	Scale:	Drawn by:	
04/03/2021	1:250@A3	NW	

Note: Dimensions are not to be scaled from this drawing.
All written measurements are to be checked on site by the contractor. Copyright WeKnow Services.
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Appendix 2.0

Tree Protection Fencing

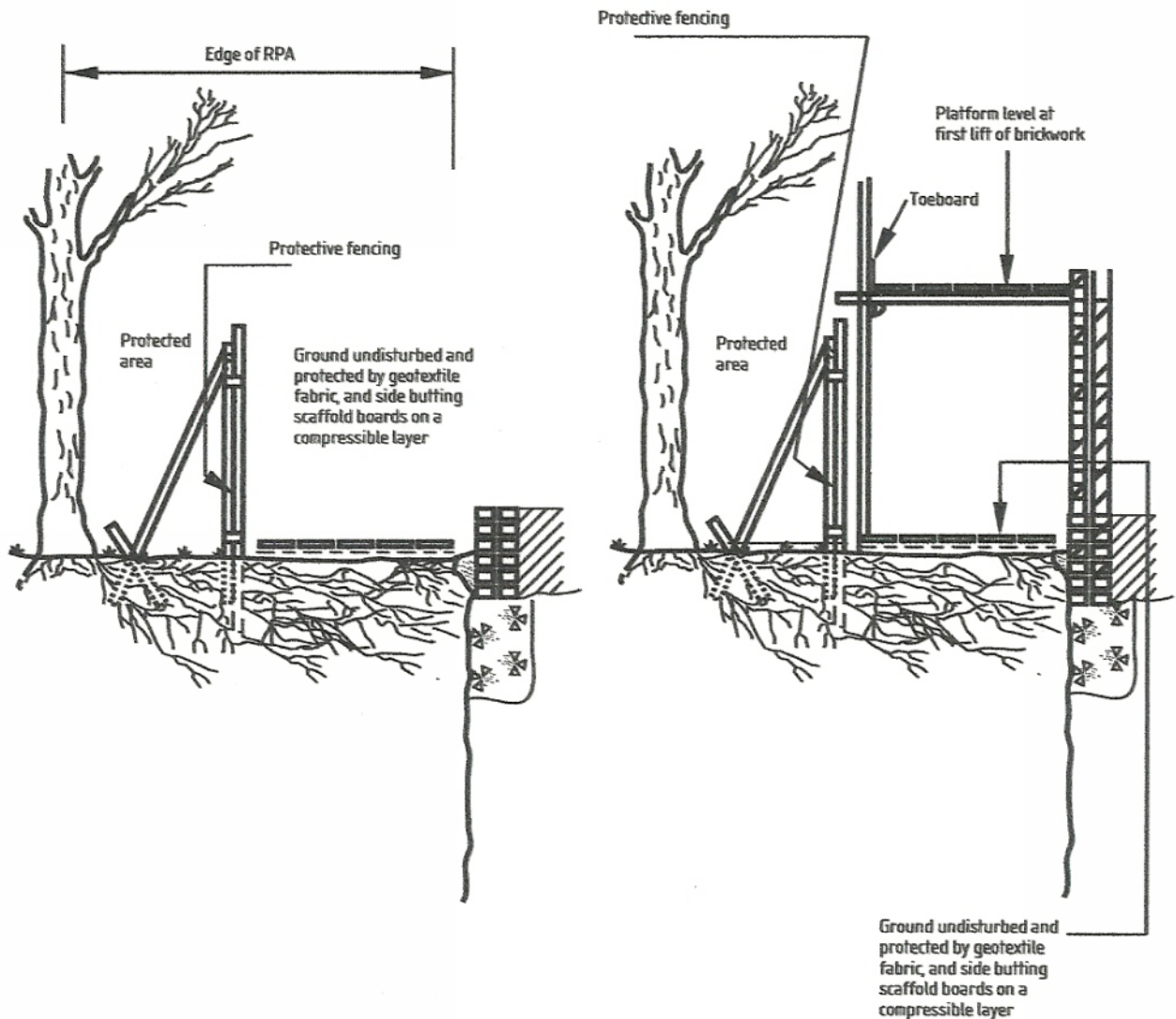




Fencing arrangement in the presence of underground services- vertical sections mounted in boots and stabilizer strut mounted on block tray

Appendix 3.0

Ground Protection Measures



The scaffold boards may be substituted for plywood sheets (e.g. 2440mm by 1220mm) of at least 19mm thickness and laid on 150mm depth mulch in order to spread the load of any high points on the original surface.